

Graduate Program

Yearly/ Semester	Required /Elective	Course Name		Credits
		Chinese	English	
Yearly	Required	碩士論文	Thesis	6
Yearly	Required	結構工程專題討論	Seminar in Structural Engineering	0
Yearly	Required	水利工程專題討論	Seminar in Hydraulic Engineering	0
Yearly	Required	大地工程專題討論	Seminar in Geotechnical Engineering	0
Yearly	Required	測量資訊專題討論	Seminar in Surveying Information	0
Semester	Elective	彈性力學	Theory of Elasticity	3
Semester	Elective	高等結構學	Advanced Structural Analysis	3
Semester	Elective	地震工程分析	Earthquake Engineering Analysis	3
Semester	Elective	板殼力學	Theory of Plates and Shells	3
Semester	Elective	鋼筋混凝土構件行為學	Behavior of Reinforced Concrete Members	3
Semester	Elective	結構動力數值分析	Numerical Analysis of Structural Dynamics	3
Semester	Elective	海中結構物之行為分析	Behavior and Analysis of Offshore Structures	3
Semester	Elective	鋼結構行為學	Behavior of Steel Structures	3
Semester	Elective	結構分析理論	Computer-Assisted Structural Analysis and Modeling	3
Semester	Elective	工程材料特論	Special Topics on Engineering Material	3
Semester	Elective	機率在結構工程上之應用	Probability Approach to Structural	3
Semester	Elective	結構可靠度分析	Analysis of Structural Reliability	3
Semester	Elective	高等預力混凝土	Advanced Prestressed Concrete	3
Semester	Elective	高等鋼筋混凝土設計	Advanced Reinforced Concrete Design	3
Semester	Elective	鋼筋輕質混凝土	Reinforced Light Weight Concrete	3
Semester	Elective	有限元素法	Finite Element Method	3
Semester	Elective	結構分析與設計	Structural Analysis and Design	3
Semester	Elective	計算力學	Computational Mechanics	3
Semester	Elective	耐震設計	Earthquake Resistant Design	3
Semester	Elective	散漫振動	Random Vibration	3
Semester	Elective	高等鋼結構	Advanced Steel Structures	3
Semester	Elective	能量方法	Energy Method	3
Semester	Elective	再生混凝土	Recycled Concrete	3
Semester	Elective	混凝土非破壞檢測	Nondestructive Testing of Concrete	3
Semester	Elective	結構動力學	Structural Dynamics	3
Semester	Elective	營建安全	Safety Implementation in Construction	3
Semester	Elective	結構隔震及消能設計	Structural Base Isolation and Energy Dissipation Design	3
Semester	Elective	高等流體力學(一)	Advanced Fluid Mechanics(I)	3
Semester	Elective	高等流體力學(二)	Advanced Fluid Mechanics(II)	3
Semester	Elective	水資源系統分析(一)	Analysis of Water Resources System (I)	3
Semester	Elective	水資源系統分析(二)	Analysis of Water Resources System (II)	3
Semester	Elective	水工設計	Design of Hydraulic Structures	3
Semester	Elective	高等明渠水力學	Advanced Open Channel	3
Semester	Elective	應用統計學	Applied Statistics	3

Semester	Elective	有限元素在流體力學之應用	Finite Element Method for Fluid Mechanics	3
Semester	Elective	地理資訊系統	Geographic Information System	3
Semester	Elective	海岸水力學	Coastal Hydrodynamics	3
Semester	Elective	水文模式（一）	Rainfall-Runoff Simulation Models(I)	3
Semester	Elective	邊界層理論	Incompressible Boundary Layer Theory	3
Semester	Elective	逕流分析特論（一）	Special Topics on Runoff Analysis(I)	3
Semester	Elective	河口水力學	Estuary Hydraulics	3
Semester	Elective	高等流體力學實驗	Advanced Fluid Mechanics Lab	3
Semester	Elective	紊流理論	Theory of Turbulence	3
Semester	Elective	輸砂力學	Mechanics of Sediment Transport	3
Semester	Elective	隨機數據分析	Random Data Analysis	3
Semester	Elective	計算流體力學(一)	Computational Fluid Dynamics (I)	3
Semester	Elective	計算流體力學(二)	Computational Fluid Dynamics (II)	3
Semester	Elective	局部冲刷特論	Special Topics on Local Scour	3
Semester	Elective	海岸工程特論	Special Topics on Coastal Engineering	3
Semester	Elective	橋樑水力學	Bridge Hydraulics	3
Semester	Elective	應用工程日文	Applied of Engineering Japanese	3
Semester	Elective	水文循環變遷特論（一）	Special Topics on Hydrologic Cycle Changing(I)	3
Semester	Elective	逕流分析特論（二）	Special Topics on Runoff Analysis(II)	3
Semester	Elective	水文循環變遷特論（二）	Special Topics on Hydrologic Cycle Changing(II)	3
Semester	Elective	生態環境施工法	Environment-friendly Engineering Methods	3
Semester	Elective	海岸環境與保護工程	Coastal Environment and Protection Engineering	3
Semester	Elective	現場監測	Field Monitoring Techniques	3
Semester	Elective	高等基礎工程	Advanced Foundation Engineering	3
Semester	Elective	土壤質流學	Soil Rheology	3
Semester	Elective	高等應用土壤力學	Advanced Applied Soil Mechanics	3
Semester	Elective	電子計算機在大地工程上之應用	Computer Application in Geotechnical Engineering	3
Semester	Elective	坡地工程特論	Special Topics on Slope and Engineering	3
Semester	Elective	土壤動力學	Soil Dynamics	3
Semester	Elective	邊界元素法	Boundary Element Method	3
Semester	Elective	高等工程地質學	Advanced Engineering Geology	3
Semester	Elective	地下水與滲流	Groundwater and Seepage	3
Semester	Elective	高等岩石力學	Advanced Rock Mechanics	3
Semester	Elective	路面工程特論	Special Topics on Pavement Design	3
Semester	Elective	高等土壤力學與實習(一)	Advanced Soil Mechanics : with Lab Practice(I)	4
Semester	Elective	高等土壤力學與實習(二)	Advanced Soil Mechanics : with Lab Practice(II)	4
Semester	Elective	影像處理	Image Processing	3
Semester	Elective	營建工程專案管理	Construction Project Management	3
Semester	Elective	GPS衛星定位測量	GPS Satellite Surveying	3

Semester	Elective	製圖學	Cartography	3
Semester	Elective	數值攝影測量	Digital Photogrammetry	3
Semester	Elective	營建管理資訊系統	Information System for Construction Management	3
Semester	Elective	都市決策支援系統	Urban Decision Support Systems	3
Semester	Elective	解析航空測量學	Analytical Photogrammetry	3
Semester	Elective	衛星大地測量	Satellite Godesy	3
Semester	Elective	營建作業設計與管理	Design and Management of Construction Operations	3
Semester	Elective	高等測量平差法（一）	Advanced Data Adjustment (I)	3
Semester	Elective	高等測量平差法（二）	Advanced Data Adjustment (II)	3
Semester	Elective	遙測學	Remote Sensing	3
Semester	Elective	應力波動之原理及應用	Theory and Application of Stress Waves	3
Semester	Elective	橋樑設計	Design of Bridge Structure	3
Semester	Elective	大地地震工程	Geotechnical Earthquake Engineering	3
Semester	Elective	集水區水文數值模擬	Numerical Simulation in Watershed Scale Hydrology	3
Semester	Elective	高等水文學	Advanced Hydrology	3
Semester	Elective	深基礎工程	Deep Foundation Engineering	3
Semester	Elective	理論土壤力學	Theoretical Soil Mechanics	3
Semester	Elective	高等結構動力學	Advanced Structural Dynamics	3
Semester	Elective	高等教育教學實務(一)	Teaching Practice in Higher Education (I)	0
Semester	Elective	高等教育教學實務(二)	Teaching Practice in Higher Education (II)	0
Semester	Elective	瀝青材料	Bituminous Materials	3
Semester	Elective	高等混凝土	Advanced Concrete	3
Semester	Elective	混凝土特論	Special study on Concrete	3
Semester	Elective	結構振動控制	Structural Vibration Control	3